

WHAT IS CLAIMED IS:

1. A method of avoiding data loss in a data object replication process, comprising:

creating an electronic data element comprising a first field having an identifier and a second field having a state of the identifier;

setting the second field of the data element to a state indicating that the electronic data element may be accessed and assigned;

assigning the identifier to one or more data objects;

setting a shared lock on the electronic data element;

storing the one or more data objects; and

upon a commit of the storing of the one or more data objects, removing the shared lock and setting the state of the identifier to indicate that the one or more data objects may be replicated.

2. The method of claim 1, wherein the state of the identifier may be set to:

a) a first state, in which said electronic data element may be accessed by one or more data object processing operations and whereby said identifier is assignable to one or more data objects,

b) a second state, in which said electronic data element may not be accessed by one or more data object processing operations and whereby said identifier is assignable to one or more data objects, or

c) a third state, in which said electronic data element may not be accessed by one or more data object processing operations and whereby said identifier is not assignable to one or more data objects.

3. The method of claim 2, further comprising setting the state of the second field of the electronic data element to the second state.

4. The method of claim 2, wherein upon a commit the state of the second field of the electronic data element is set to the third state.

5. The method of claim 4, further comprising replicating the one or more data objects assigned to the identifier set to the third state.

6. The method of 5, further comprising creating a second electronic data element and setting it to the first state.

7. The method of claim 6, further comprising setting the second electronic data element as the default data element.

8. The method of claim 7, further comprising setting a previously defined electronic data element to the second state.

9. The method of claim 4, further comprising irreversibly blocking the changing of the state of the electronic data element.

10. A system for avoiding data loss in a data object replication process, comprising:

a memory; and

a microprocessor coupled to the memory and programmed to:

create an electronic data element comprising a first field having an identifier and a second field having a state of the identifier;

set the second field of the data element to a state indicating that the electronic data element may be accessed and assigned;

assign the identifier to one or more data objects;

set a shared lock on the electronic data element;  
store the one or more data objects; and  
upon a commit of the storing of the one or more data objects, remove the shared lock and set the state of the identifier to indicate that the one or more data objects may be replicated.

11. The system of claim 10, wherein the state of the identifier may be set to:

a) a first state, in which said electronic data element may be accessed by one or more data object processing operations and whereby said identifier is assignable to one or more data objects,

b) a second state, in which said electronic data element may not be accessed by one or more data object processing operations and whereby said identifier is assignable to one or more data objects, or

c) a third state, in which said electronic data element may not be accessed by one or more data object processing operations and whereby said identifier is not assignable to one or more data objects.

12. The system of claim 11, wherein the microprocessor is further programmed to set the state of the second field of the electronic data element to the second state.

13. The system of claim 11, wherein the microprocessor is further programmed to, upon a commit, set the state of the second field of the electronic data element is set to the third state.

14. The system of claim 13, wherein the microprocessor is further programmed to replicate the one or more data objects assigned to the identifier set to the third state.

15. The system of claim 14, wherein the microprocessor is further programmed to create a second electronic data element and setting it to the first state.

16. The system of claim 15, wherein the microprocessor is further programmed to set the second electronic data element as the default data element.

17. The system of claim 16, wherein the microprocessor is further programmed to set a previously defined electronic data element to the second state.

18. The system of claim 13, wherein the microprocessor is further programmed to irreversibly block the changing of the state of the electronic data element.